

REMARKS

The Office Action dated June 26, 2006 has been carefully reviewed. Claims 8, 10, 15-17, 27, and 29-30 have been objected to but contain allowable subject matter. Claims 22 and 31 are allowable. Claims 1-7, 9, 11-14, 18-19, 20-21, 23-26, and 28 have been rejected.

Claim Objections

Claims 1 and 5 have been amended to correct the errors in these claims following the suggestions proposed by the Examiner. Claims 7 and 28 have been cancelled, however, to the extent that claim 7 is now incorporated into claim 1, the recommended changes in claim 7 have been adopted.

Claim Rejections 35 U.S.C. § 112

Claims 3 and 4 have been amended so that they depend on claim 2 thus correcting the antecedent basis problem noted by the Examiner.

Claim 19 has been corrected to depend on claim 18 as proposed by the Examiner.

In claim 20, "the logical combination" has now been made --a logical combination-- to correct the antecedent basis problem noted by the Examiner, and in claim 25, "each repeated execution" and been replaced with --executions of the safety program--, which is believed to correct the problem noted therein.

Claim Rejections 35 U.S.C. § 102

In light of the rejection of claim 1, claim 1 has been amended to incorporate limitations from claim 8 which has been indicated to be allowable. The limitation added to claim 1, however, differ from claim 8 (and intervening claim 7) in two respects.

First, the added limitations to claim 1 now require that both the safety programs and the standard program generate outputs, not just the safety program. It is believed that this asymmetrical execution of programs (standard and safety) that both generate outputs helps distinguish the present invention and its concern about the corruption of one program by another program with the prior art that is concerned principally by failure of computer hardware.

Second, the added limitations to claim 1 also differ from claim 8 by indicating that the synchronization program compares execution of the safety programs prior to outputting the output values to the external device but not necessarily at the conclusion of each repeated execution. It is believed that without this change, attempts might be made to avoid the claims by

executing a minor number of additional instructions after to the comparison process but before output of the compared values.

Despite these changes, it is believed that the claim 1 amendment captures the spirit of the allowed claim 8 and is now distinguishable over the prior art, which does not teach or suggest the splitting of programs that are closely allied in generating output values for asymmetric execution.

With this amendment, it is believed that claim 1 and those claims dependent on claim 1 (claims 2-5 and 9 through 19) are allowable.

Claim 20 has been indicated to be allowable with the correction of the error in claim 20, as has been done. Accordingly claims 20 and dependent claims 21 are also believed to be allowable.

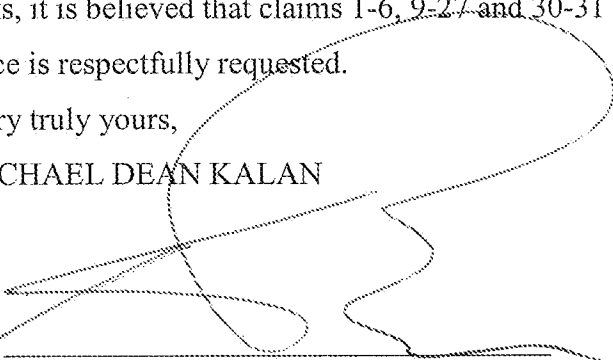
Claim 22 has been indicated to be allowable.

Claim 23 has been amended to incorporate the limitations of claim 29 (and 28), the former indicated to be allowable. Accordingly, claims 23 and dependent claims 24-27 are also believed to be allowable.

In light of these amendments and remarks, it is believed that claims 1-6, 9-27 and 30-31 are now in condition for allowance and allowance is respectfully requested.

Very truly yours,
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